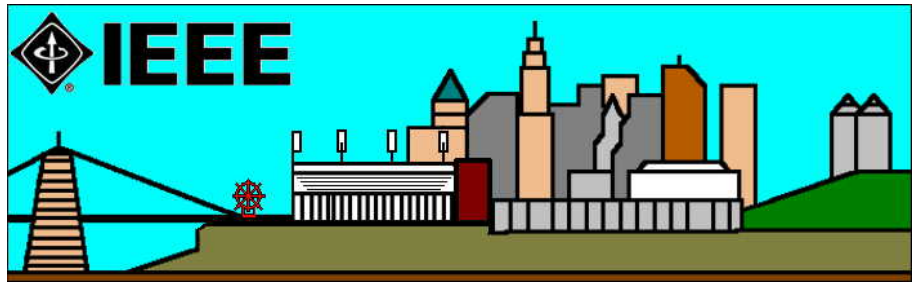


**IEEE CINCINNATI
SECTION
NEWSLETTER
MAY 2005**



**MAY MEETING
SENIOR PROJECTS**

DATE: Thursday, May 26, 2005

PLACE : Raffel's – 10160 Reading Road (see below for directions)

TIME : 5:30 p.m. to 7:00 p.m. - Social Time/Dinner
7:00 p.m. to 8:30 p.m. - Program

COST FOR DINNER: \$10.00 for Student Members
\$15.00 for Members
\$20.00 for Non-Members

MENU SELECTIONS: Country Fried Chicken, Spaghetti with Meatballs, Meatloaf served with Brown Gravy, Whipped Potatoes, Succotash, Caesar Salad, Fresh Fruit Salad, Buttermilk Biscuits, Apple Dumpling, Coffee, Tea Iced Tea, Soft Drinks. There is also a bar available for the purchase of alcoholic drinks. Raffel's is located at 10160 Reading Road, south of Glendale-Milford Road on the east side of Reading. Take I-75 to the Glendale-Milford Rd. Exit, go east on Glendale-Milford Road approximately 3/4 of a mile to Reading Rd. and turn right on Reading.

Please call the Cincinnati Section Voice Mailbox at **513-629-9380**, by **Noon, Tuesday, May 24, 2005** if you plan to attend. Please leave your Name, IEEE Member Number, and a daytime telephone number. You can also make a reservation by e-mailing our Arrangements Chair, Charlie Nash, at cnash@ieee.org.

ABOUT THE PRESENTATION: This month's meeting will feature presentations by senior students from the Electrical and Computer Engineering Technology Program at the University of Cincinnati College of Applied Science and the Computer and Electronics Engineering Technology Program at Northern Kentucky University that highlight the results of their senior projects. Two students from each university will present their findings in a brief slideshow, demonstrate their projects, and answer questions from the audience.

The CEET-NKU presenters and their topics are:

Greg Meisman -- "Integrated Home Theater Controller"
Amy Matracia -- "Filter Control Process Upgrade"

Information on the UC-CAS presenters and their topics was not available at press time.

CHAIR'S MESSAGE

by Jim Everly, Section Chair

Last month's meeting featured Mr. Jim Simek of NASA on the planet Mars. His talk featured information known about Mars from the 1600's to present. The historical overview was interesting and I was fascinated with recent pictures of the Martian surface. To boost attendance for the meeting the section offered a door prize of an Apple iPOD. Our Arrangements Chair, Charles Nash, carefully verified IEEE membership status in order to participate in the drawing. I thought for a moment that I was not going to find my IEEE card in my wallet. The lucky winner of the iPOD was Laurie Tappel, Treasurer of the Cincinnati Section.

This month's meeting focuses on senior design projects at the University of Cincinnati's OMI College of Applied Science together with projects from Northern Kentucky University. In past years this meeting has been well attended by the membership and the projects have been very interesting. Please join us for an evening of applied technology.

Senior Member elevation process is underway during the month of May. If you are interested in becoming an IEEE Senior Member please contact our PACE Chair Brian Resnick for details..

NEW MEMBERS

The following individuals are IEEE members who are new to our Section:

Jason Barkeloo	Christopher R. Nusbaum
R H. Black	Bobby L. Shields
Paul J. Earl	Adam Smieszny
Richard L. Green	Ashwin Suresh
Glen A. Kading	Brian M. Traffis
Thomas M. Lucas	Gary A. Vogeler
Nancy L. McClanahan	Honghao Wang
Tuan A. Nguyen	Tyler J. Watson

We wish to welcome these new members to our Section!!!

University of Cincinnati - College of Applied Science Department of Electrical and Computer Engineering Technology (ECET) Looking for an Assistant Professor

The ECET department invites applications for a tenure track Assistant Professor of Computer Engineering Technology to begin teaching in Fall 2005. The department offers the Associate and Bachelor degrees in Electrical Engineering Technology (EET) and the Bachelor degree in Computer Engineering Technology (CET). Responsibilities include developing and teaching lecture and laboratory courses in both day and evening programs mainly in computer related areas, advising students, participation in scholarly activities, and service to the profession and university. Minimum requirements include a master's degree in electrical or computer engineering or engineering technology, teaching experience and demonstrable communications skills, along with three years relevant full time industrial experience. PhD and professional registration are plusses. The position will be available Fall, 2005 and will remain open until filled. Candidates from industry or engineering and engineering technology programs are encouraged to apply. Applicants that are not United States citizens must possess appropriate visa status. Applicants should send a letter of application, resume/vita, to include the name, address, telephone number and email address of four references to Professor Elvin Stepp (Elvin.Stepp@UC.Edu), University of Cincinnati. College of Applied Science, 2220 Victory Pkwy, Cincinnati, OH, 45206-2839.

A History of Electrical Engineering

Submitted by Dick Reiman, Historian

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Frederick B. Llewellyn

Sixty years ago this month the PROCEEDINGS OF THE INSTITUTE OF RADIO ENGINEERS (IRE) included a paper by Frederick B. Llewellyn concerning the theory of vacuum tubes at ultrahigh frequencies. At the time he was employed as a research engineer at the Bell Telephone Laboratories. He began the paper by reviewing the history of the analytical theory of vacuum tubes at lower frequencies. He stated that designers of electronic circuits had relied on "cut and try" methods until the introduction of the theory of equivalent circuits by van der Bijl and others who showed that, for purposes of analysis, a vacuum-tube amplifier could be treated as a fictitious generator with an internal impedance determined from the static volt-ampere characteristics. Llewellyn continued that the key to the success of this method was in the separation of alternating and direct current components, with the equivalent circuit applying only to alternating currents.

In his November 1933 paper, Llewellyn undertook to extend the equivalent circuit approach to cases where the transit time of electrons from cathode to plate was comparable to the period of a signal to be amplified. He cited earlier work by Irving Langmuir, Karl T. Compton, and W. E. Benham as being important in setting the stage for his own work. Beginning with the "classical equations" of electromagnetic theory, Llewellyn derived equations for a modified equivalent circuit for vacuum tubes used at ultrahigh frequencies. He expressed the hope that his analysis would help designers better to visualize cases where the "time of flight" of electrons had to be taken into account.

Llewellyn was born in 1897 in New Orleans, LA. As an early radio enthusiast, he worked as a radio operator for the United States Navy and the Merchant Marine intermittently from 1915 to 1921. He received an engineering degree from Stevens Institute of Technology, Hoboken, NJ, in 1922 and then worked as a laboratory assistant to Frederick K. Vreeland during 1922-1923. In 1923 he was hired as a research engineer at a laboratory of the Western Electric Company and he continued at the laboratory when it became part of the Bell Telephone Laboratories in 1925. He was author or coauthor of seven IRE papers published between 1930 and 1935 dealing with topics such as noise, modulation, oscillators, and high-frequency vacuum-tube amplifiers. He received the Morris N. Liegmann Memorial Award of the IRE in 1935 in recognition of his studies of vacuum tubes at ultra-high frequencies. His book *Electron Inertia Effects* was published in 1941.

During World War II, Llewellyn served as a consultant to the Office of Secretary of War. He and Edwin H. Armstrong designed a sensitive receiver which was used to detect a radar signal reflected from the moon. Llewellyn served on the IRE Board of Directors from 1939 to 1945 and was IRE President in 1946. He held various consulting positions, mostly concerned with military electronics systems, in the postwar years and was assistant to the President of Bell Telephone Laboratories from 1956 to 1961. He was affiliated with the Institute of Science and Technology at the University of Michigan from 1961 to 1965 and then was Research Director of the Polytechnic Institute of Brooklyn from 1965 until his retirement in 1967. During his career he received around 39 patents. He died at the age of 74 in 1971.

*James E. Brittain
School of History, Technology, and Society
Georgia Institute of Technology*

College of Applied Science

TECH EXPO 2005

TECH EXPO

Friday, May 20, 2005

10:00 a.m. – 7:00 p.m.

Cinergy Center

(Convention Center – downtown Cincinnati)

contact:

Betsy Zelek

513/702-2732

bzms@zoomtown.com

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Cincinnati

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- Be featured as a sponsor of our VIP networking reception and awards ceremony — *plus* invitations for your company representatives to attend this special event
- Sponsor a departmental award named for your business — award will honor a top student display at Tech Expo
- Receive a complimentary booth at the popular CAS Job Fair, held in 2005-06 — a \$250 value that provides access to hundreds of students and alumni!
- Assist in selection of the *Industry Partners Commendation Award* for the best senior project display
- 10' x 10' display booth during Tech Expo 2005
- Have a photo of your Expo booth *plus* a corporate listing in the 2005-06 edition of *Tech Record* (alumni publication — distribution 10,000)
- Corporate Listing in 2005 edition of the Tech Expo Program

RIEVESCHL

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- Sponsor a departmental award named for your business — award will honor a top student display at Tech Expo 2005
- Receive a complimentary booth at the popular CAS Job Fair, held in 2005-06 — a \$250 value that provides access to hundreds of students and alumni!
- Assist in selection of the *Industry Partners Commendation Award* for the best senior project display
- 10' x 10' display booth during Tech Expo 2005
- Invitation for your company representatives to attend the VIP networking reception at Expo 2005
- Have a photo of your Expo booth *plus* a corporate listing in 2005-06 edition of *Tech Record* (alumni publication — distribution 10,000)
- Corporate Listing in 2005 edition of the Tech Expo Program

PARKER

\$750

- 10' x 10' display booth during Tech Expo 2005
- Invitation for your company representatives to attend the VIP networking reception at Expo 2005
- Corporate Listing in 2005-06 edition of *Tech Record* (alumni publication — distribution 10,000)
- Corporate Listing in 2005 edition of the Tech Expo Program

Your sponsorship is tax deductible to the fullest extent of the law. Checks should be made payable to the University of Cincinnati Foundation.

EVERYONE IS INVITED TO ATTEND - NO ADMISSION CHARGE

**STOP BY TO SEE THE 100+
INTERESTING SENIOR STUDENT DESIGN PROJECTS**

IEEE NEWS

The current issue of IEEE's "The Institute" is now available for viewing at <http://www.ieee.org/theinstitute>. Included in this issue:

- IEEE Personalizes Membership Web Site. Finding out what the IEEE offers members just got easier. A new Web site, called the member portal, brings the benefits of membership together into one place for all to see. The portal also includes a new area called myIEEE, where members can find everything they want to know about their membership data and affiliations. MyIEEE will display personal information such as membership grade, subscriptions, and section and society. Find out more at <http://boldfish.ieee.org/u/membweb8u/04824637>
- Consultant's Advice Is on the Money. As a member of the IEEE Consultants Network, Senior Member Sai Chiang has considerable experience that makes him an authority on how to collect consulting fees. Chiang gives other members who work as consultants some tips on preventing and handling payment problems. Read his advice at <http://boldfish.ieee.org/u/consult8v/04824637>
- Local Kids Benefit From IEEE Group. With the help of the IEEE Northern Virginia Graduates of the Last Decade (GOLD) group, youngsters from the Parkview Community Center in Washington, D.C., built a small oscillator composed of transistors, flashing light-emitting diodes, and a speaker that clicked or beeped to the time constant of the circuit. This is just one of several community outreach activities this GOLD group has been involved with. Read more at <http://boldfish.ieee.org/u/kids8w/04824637>
- Web Sites Need Not Be Lost in Translation. An estimated 30 percent of IEEE members do not speak English as a first language, leaving a large population who may be facing difficulties, as the majority of IEEE publications and Web sites are in English. But some IEEE regions and societies are not content to assume members are fluent in English and, therefore, are translating Web sites and publications into other languages. Find out more at <http://boldfish.ieee.org/u/english8y/04824637>
- Marketplace of Ideas: Harvard Hacked. About 200 applicants to Harvard Business School and other prestigious MBA institutions exploited a programming loophole to go online through their personal Web pages assigned by each school to find out early if they'd been accepted. Should these students be denied admission for this ethical lapse, if it is one? Weigh in at institute@ieee.org
- Sections Congress Makes Good Leaders Better. Section leaders usually have a good sense of what individuals want from their IEEE membership, but a little extra guidance never hurts. That's where the triennial Sections Congress comes in, providing these volunteer leaders the training and guidance they need to give the members of their sections more information about what the IEEE has to offer. Read more about this year's congress, to be held 14-17 Oct. in Tampa, Fla. at <http://boldfish.ieee.org/u/sections8z/04824637>
- Grant Applications Go Online. Applying for grants from the IEEE Foundation is simplified now that applications can be filled out and submitted online. Grants can range into the tens of thousands of dollars for projects that meet the foundation's goals of developing educational and public information programs that support historical research services and subsidizing workshops that facilitate electronic information exchange. Find out more at http://boldfish.ieee.org/u/grant8_/04824637
- Region 10 Tops in Membership. While the IEEE ended 2004 with a 1.2-percent membership increase to 365,483 members, perhaps the more interesting news is that the IEEE region with the most members is no longer in the United States. Last year saw Region 10 (Asia and Pacific) become the largest region,

with 63,548 members, beating out Region 6 (Western United States), which ended the year with 61,540. Read more about 2004 membership numbers at <http://boldfish.ieee.org/u/region8/04824637>.

- Members are Mostly Satisfied, Survey Shows. Members responded with good news and a bit of bad news when surveyed at the end of last year about how satisfied they were with the IEEE and its services. Most were very satisfied, for example, with the quality of IEEE publications, including transactions, magazines, and journals. But IEEE-USA publications, IEEE Travel Services, and the institute's job site didn't fare as well. Read more at <http://boldfish.ieee.org/u/membsurcm/04824637>
- IEEE Responds to Survey Feedback. If you've ever taken the time to fill out and return the IEEE Member Satisfaction Survey or given your feedback in other institute polls, you've probably wondered if the IEEE does anything with the results. It does. Find out how survey results have led the institute to improve several different services at <http://boldfish.ieee.org/u/fbackcn/04824637>
- Help-Wanted Notices on Job Site Set Record. A stronger economy and a site redesign combined to produce a record- setting year for the online IEEE Job Site. Last year, 5248 help-wanted notices were posted on the site by would-be employers, a 124 percent increase over the 2346 jobs posted in 2003. Large defense contractors such as Northrop Grumman and General Dynamics posted many of the jobs, as did companies that included Agilent Technologies and Research in Motion. Find out more at <http://boldfish.ieee.org/u/jobsiteco/04824637>
- IEEE Fellow Strives for Equality in Engineering Education. Denice Denton says big corner offices and lofty titles aren't important to her -- at least not as important as creating equal opportunities for all students, regardless of race or gender. It is a job she has been doing since February, when the IEEE Fellow was named chancellor of the University of California at Santa Cruz, home to approximately 15,000 students. Read more about Denton at <http://boldfish.ieee.org/u/fellowcq/04824637>
- Exploring the Complex World of Electronic Design. The ever-shrinking world of electronic circuitry and the increasingly intricate world of electronic systems are to come together at the 42nd Design Automation Conference, the leading forum for design engineers and electronic design tool developers. The conference is scheduled for 13-17 June in Anaheim, Calif. To find out more, visit <http://boldfish.ieee.org/u/confcr/04824637>
- Communications, Circuits, and Systems Conference Papers Now Online. The proceedings of the 2004 International Conference of Communications, Circuits, and Systems are now available through ShopIEEE and IEEE Xplore. Topics covered include communications theory, coding and decoding, modulation and CDMA systems, wireless communication, MIMO systems, and smart antennas. Individual papers are accessible online via IEEE Xplore for IEEE Member Digital Library subscribers. Institutions with subscriptions to IEEE online collections also have access to the proceedings, depending on their access rights. Visit <http://boldfish.ieee.org/u/paperscs/04824637>. To purchase this title from ShopIEEE, visit <http://boldfish.ieee.org/u/shopct/04824637>
- Send in News of Your Awards and Recognitions. Each month, The Institute publishes notices of members' recent awards and recognitions from employers, governments, and other professional organizations. In 50 words, describe the award and its significance, include your name and member grade, and send it to institute@ieee.org . Read this month's recognitions at <http://boldfish.ieee.org/u/recogcv/04824637>
- Nominations Sought for Standards Association Awards. The IEEE Standards Association Awards Committee is seeking nominations for the 2005 IEEE Standards Association International Award and

2005 IEEE Standards Association Corporate Award. The international award is presented to an individual member who has made extraordinary contributions to the advancement of the international goals of the IEEE Standards Association. The corporate award goes to a member organization for providing outstanding leadership and contributions to industry. The deadline for nominations is 31 May 2005. For more information, visit <http://boldfish.ieee.org/u/stdscw/04824637>

- Focus on Hot New Technologies. Wanting to keep abreast of new technologies that will be hot in the next few years, members asked the IEEE to improve coverage in its publications and conferences of so-called emerging technologies. The IEEE Technical Activities Board took on the task of deciding what to cover in an initiative called the IEEE Focus on Technologies. Find out which new technologies the IEEE will be concentrating on at <http://boldfish.ieee.org:80/u/162/04824637>
- IEEE Xplore Streamlines Its Tools. Members have always enjoyed unparalleled access to IEEE publications through the IEEE Xplore online delivery system. Now, an upgrade to the system -- version 2.0 -- offers members and other IEEE Xplore subscribers more convenience than ever, including search enhancements. Read more at <http://boldfish.ieee.org:80/u/163/04824637>
- College Seniors Get Schooled in How to Search for a Job. With all that college students have to worry about in their last semester, searching for a job can seem overwhelming. However, knowing that you're looking for not just a job but a career can make the process run more smoothly, according to Senior Member Fred Seelig, chair of the Northern Virginia Section Student Activities. Read more at <http://boldfish.ieee.org:80/u/164/04824637>
- Marketplace of Ideas: Tailoring Science. More than 10 percent of British scientists surveyed said they were pressured by the sponsor of their research to tailor their findings to suit the sponsor's interest or were asked not to publish the results. Have you ever faced a similar situation, and how did you handle it? Weigh in at institute@ieee.org
- Early Radio Transmission Recognized as Milestone. It was in 1895 that Alexander Popov first demonstrated the principle that irks so many of us today in restaurants and movie theaters: that a wireless device can detect an electromagnetic signal flowing through the air and ring a bell. In recognition of that experiment with wireless communication, which less than 100 years later brought us the cell phone, the IEEE Board of Directors named Popov's demonstration an IEEE Milestone in Electrical and Computer Engineering. Find out more at <http://boldfish.ieee.org:80/u/165/04824637>
- 2006 IEEE Medal and Award Nominations Due. Do you know someone whose work qualifies him or her for an IEEE medal, honorary membership, service award, or prize for a paper? If so, you have until 1 July to make your nominations for an award. For nomination forms, visit the IEEE Awards Web site at <http://boldfish.ieee.org:80/u/166/04824637> or contact IEEE Awards Activities at awards@ieee.org
- New Credit Cards Earn Travel and Cash Rewards. The IEEE Financial Advantage Program has three new low-interest platinum Visa credit cards for members in the United States. Two cards offer rewards. The cash-back card earns up to 1 percent cash back on all purchases. The travel-rewards card earns points that can be redeemed for airline tickets, cash, gift certificates, or merchandise. For those who would rather have just a low interest rate on any unpaid balance, there's a basic platinum Visa card. Find out more at <http://boldfish.ieee.org:80/u/168/04824637>
- IEEE Computer Society Partners with Samsung. The IEEE Computer Society and Samsung's Stable Data Services in Seoul, South Korea, have signed a memorandum of understanding, the first step toward developing a partnership. The IEEE Computer Society will offer Samsung its Certified Software

Development Professional Program, an exam that covers all areas of software engineering. Approximately 30 Samsung software developers are expected to take the certification exam. Find out more at <http://boldfish.ieee.org:80/u/169/04824637>

IEEE-USA White Paper: U.S. Prosperity at Risk; Gigabit Networks Should be National Priority

WASHINGTON (8 April 2005) - The United States should deploy widespread wired and wireless gigabit networks as a national priority, according to a white paper from the IEEE-USA Committee on Communications and Information Policy (CCIP).

"Providing Ubiquitous Gigabit Networks in the United States," issued 14 March, says that our nation must act promptly to ensure that a new generation of broadband networks "of gigabit per second speed" is ubiquitous and available to all. Failure to act will "relegate the U.S. telecommunications infrastructure to an inferior competitive position" and undermine the future of the U.S. economy.

"Priority deployment of gigabit networks is essential for the United States to maintain its world leadership in the knowledge economy," IEEE Life Fellow and IEEE-USA CCIP member Dr. John Richardson said. "Information drives our lives and our prosperity. The problem is that current networks aren't fast enough to distribute that information properly."

Digital data rates, or speeds, are typically expressed as megabits per second (Mb/s) or gigabits per second (Gb/s). A megabit is one million bits; a gigabit is one billion bits. Current broadband networks, such as DSL or cable modems, have an asymmetric speed of about 2 Mb/s. Gigabit networks are capable of digital rates 50 to 5,000 times as fast, with equal upstream and downstream speed. Symmetric speed means information can be downloaded and uploaded at the same rate. With asymmetric systems, upstream speeds lag behind downstream delivery rates.

Omnipresent U.S. gigabit networks, readily achievable by deploying optical fiber and high-speed wireless, would carry numerous benefits. These include providing the U.S. economy with superior ability to compete globally; stimulating economic activity in digital home entertainment; enhancing online education and training; and facilitating health care remote diagnosis and consultation (telemedicine).

Congress, the Executive Branch and private-sector initiatives could secure these benefits for our nation's global competitiveness and quality of life by adopting "principles leading to ubiquitous, symmetric gigabit availability as a national priority," according to the CCIP white paper (<http://www.ieeeusa.org/volunteers/committees/ccip/docs/Gigabit-WP.pdf>). Such principles include regulatory flexibility and encouragement of user-owned networks.

"The key fact of modern telecommunications is the convergence of voice, data, image and video into digital bit streams," said Richardson, a former chief scientist at the National Telecommunications and Information Administration. "We need faster networks to carry these bit streams to users. Broadband speed and penetration in the United States are pitiful compared to levels in Japan and South Korea. This means that U.S. prosperity is at risk because it depends, in large part, on fast and easy exchange of information."

IEEE-USA Awards Nominations Now Being Accepted; Deadline is 31 July

WASHINGTON (25 April 2005) - Before Dr. Charles P. Rubenstein and Rep. Dana Rohrabacher (R-Calif.) were honored with 2004 IEEE-USA awards for engineering professionalism and distinguished public service, respectively, they had to be nominated. Now is your opportunity to nominate someone for a 2005 award.

IEEE-USA's distinguished awards are presented to U.S. IEEE members in recognition of professional, technical and literary contributions to public awareness and understanding of the engineering profession in the United States. They are administered under the IEEE-USA Awards and Recognition Committee and approved by the organization's Board of Directors. Recipients are honored each year at an awards ceremony held during the IEEE-USA Leadership Workshop.

The nomination deadline is 31 July 2005.

For more information, visit the IEEE-USA Awards and Recognition Web page at <http://www.ieeeusa.org/volunteers/committees/awards/>, or contact Sandra Kim at sandra.kim@ieee.org.

HOUSE SCIENCE COMMITTEE CHAIR ADDRESSES ENGINEERING JOBS, EDUCATION AND HUBBLE: EXCLUSIVE *IEEE-USA TODAY'S ENGINEER* INTERVIEW WASHINGTON (28 April 2005)-- Science and engineering are under pressure from many areas, from offshore interests to Congressional budget cutters. In an expansive IEEE-USA TODAY'S ENGINEER interview in April, Rep. Sherwood Boehlert (R-N.Y.), the House Science Committee chair, examines the ways those pressures affect education, offshoring and immigration, as well as rescuing the Hubble space telescope.

Boehlert has been a proponent of scientific and engineering programs since joining Congress in 1982, but he expressed many concerns over the state of engineering today. "We've got to produce more engineers, we've got to have a better educational system, we've got to solve the visa problem," he said.

Though engineers are hunting for jobs in some regions, the inability to get talent in some areas is a big concern in some parts of New York. "It bothers me that the American business community, in some of the engineering disciplines, can't accommodate its needs with a homegrown workforce," Boehlert told IEEE-USA TODAY'S ENGINEER. Though he's in favor of creating jobs for Americans, Boehlert feels that employers should have access to foreign workers who now find it difficult to get visas.

Another hot scientific topic in Washington is the Hubble telescope. "I want to extend the life of Hubble, but not at all costs," Boehlert said. Expenses seem too high for a Shuttle mission, around \$2 billion, while a robotic rescue can't be done in a timely manner, putting a dark cloud over Hubble's future.

The nation's tight finances have also led to a reduction of government funding for R&D. While NASA is seeing an increase, other budgets are "inadequate" after recent cuts. According to the House Science Committee chair, "Our future is largely dependent on our response to the challenge to invest more in R&D on the part of the government."

For the complete TODAY'S ENGINEER interview with Boehlert, go to <http://www.todaysengineer.org/2005/Apr/interview.asp>. A related article on the Hubble can be found at <http://www.todaysengineer.org/2005/Apr/hubble.asp>. To see the latest monthly TODAY'S ENGINEER, and to be added to the subscription list at no charge, go to <http://www.todaysengineer.org/emailupdates>.

**IEEE-USA IN ACTION: IEEE-USA PRESIDENT QUOTED
IN *U.S. NEWS AND WORLD REPORT***

WASHINGTON (28 April 2005) -- IEEE-USA President Gerry Alphonse is quoted in an offshoring story - "Bangalore's Big Dreams" - in the 2 May issue of U.S. News & World Report. The story examines the rise of Indian companies doing, among other things, software design and research & development work for Western

nations. Dr. Alphonse is cited for pointing out that offshoring is "a factor claiming jobs, suppressing wages, and imperiling U.S. innovation."

The article is available at http://www.usnews.com/usnews/biztech/articles/050502/2india_2.htm.

AAES HONORS OUTSTANDING ENGINEERS, RECOGNIZES TOP REPORTING: 26TH ANNUAL AWARDS CEREMONY AT NATIONAL ACADEMY OF ENGINEERING

WASHINGTON (6 May 2005) -- The American Association of Engineering Societies (AAES) recognizes the outstanding achievements of six U.S. engineers and a journalist on Monday, 9 May, at its 26th annual awards ceremony, in the Great Hall of the National Academy of Engineering in Washington, D.C.

Dr. E. Walter LeFevre, senior vice president and principal, Engineering Services, Inc., Springdale, Ark., is the winner of the "National Engineering Award," the AAES' highest honor. Dr. LeFevre is being recognized for advancing engineering education through service on the Accreditation Board of Engineering and Technology (ABET), and for his commitment to teaching the next generation of engineers as University Professor Emeritus of Civil Engineering at the University of Arkansas in Fayetteville. Although officially retired for the last six years, he continues to teach. The "National Engineering Award," established in 1979, honors engineers for inspirational leadership and tireless devotion to the improvement of engineering education and to the advancement of the engineering profession, as well as to the development of sound public policies as an engineer-statesman. American Society of Civil Engineers (ASCE) President Bill Henry will present the award.

George J. Tamaro, senior partner in Mueser Rutledge Consulting Engineers, based in New York, will receive the prestigious "John Fritz Medal" for providing guidance to emergency workers to navigate safely around the former World Trade Center site -- both above and below ground. Mr. Tamaro directed the design of the stabilization of the "bathtub" slurry walls during the recovery effort, as well as the foundations for the new Seven World Trade Center building. He continues to consult with the owner, developer and architects for the Freedom Tower and the memorial proposed for the site.

The "Fritz Medal" was established in 1902 as a memorial to the distinguished engineer whose name it bears. The award is presented annually for scientific or industrial achievement in any field of pure or applied science. In addition to its namesake, previous recipients include Lord Kelvin, George Westinghouse, Alexander Graham Bell, Alfred Nobel, Orville Wright, Guglielmo Marconi, Herbert Hoover, Charles Kettering, Vannevar Bush, Stephen Bechtel, David Packard, Robert Noyce and Gordon Moore. ASCE's Henry will present the award.

Luther W. Graef, P.E., a member of the Executive Council and U.S. delegate to the World Federation of Engineering Organizations (WFEO) will be presented the "Kenneth Andrew Roe Award." Mr. Graef is being honored "for commitment and leadership facilitating the U.S. engineering community's unity across disciplines and for his dedication in helping U.S. engineers understand their role in the international community through the WFEO." The "Roe Award" was established in 1986 to honor AAES founder Kenneth Andrew Roe. It is presented on behalf of the engineering community to recognize an engineer who has been effective in promoting unity among the engineering societies. ASCE's Henry will make the presentation.

Dr. Bernard Amadei, professor of civil engineering at the University of Colorado in Boulder, will receive the "Norm Augustine Award for Outstanding Achievement in Engineering Communications." Dr. Amadei is being honored for his passion and commitment to training globally responsible engineering students through the creation of Engineers Without Borders-USA, Engineers Without Borders-International, and the two groups' student chapters. He is also being recognized for founding Engineering for Developing Communities. Efforts of EWB-USA in addressing the Southeast Asian tsunami were embraced by the engineering community as part of

Engineers Week 2005. The "Norm Augustine Award" is presented annually to an engineer who communicates the excitement of engineering to the public. ASCE's Henry will make the presentation.

Jon Palfreman, film director and writer and adjunct professor at Tufts University, Boston University and Suffolk University, will receive the "AAES Engineering Journalism Award." Mr. Palfreman is being honored for creating a 60-minute television documentary, "Light Speed," telling the story of humankind's efforts to communicate at a distance, leading to the birth of fiber optic technology. The award recognizes outstanding reporting of an event or issue that furthers public understanding of engineering. A veteran of television in both Britain and the United States, the AAES award recipient has made more than 40 BBC and PBS one-hour documentaries including the Peabody Award winning series, "The Machine That Changed the World." AAES Chair Suzanne Jenniches and AAES Interim Executive Director William Salmon will present the organization's "Engineering and Journalism Award."

Dr. George G. Wicks, consulting scientist, Waste Management & Environmental Remediation, Savannah River National Laboratory, will receive the "Joan Hodges Queaneau Palladium Medal." Dr. Wicks is being recognized "for playing a crucial role in designing the engineering solution to nuclear waste containment in the United States and globally through his work as a senior level researcher at the Savannah River National Laboratory." His contributions to the implementation of the Defense Waste Processing Facility in Aiken, S.C., enabled the safe and efficient long-term storage of billions of curies of nuclear waste. The "Palladium Medal" was established in 1977 to recognize an individual who encourages cooperation between engineering professionals and environmentalists to create innovative solutions to environmental problems. AAES' Suzanne Jenniches and Dr. David Clark, Professor and Head, Department of Material Sciences and Engineering, Virginia Tech, will present the Medal.

Russel C. Jones, P.E., private consultant, World Expertise L.L.C., of Falls Church, Va., will be presented the 2005 "AAES Chair's Award." Dr. Jones is being honored "for his career-long dedication to the highest standards in engineering education, and for his leadership of the U.S. engineering profession in the disciplines' engagement with world organizations in advancing engineering capacity building as the foundation for raising the standard of living of developing nations." He is also editor of "International Engineering Education Digest." Established in 1980, the "AAES Chair's Award" recognizes an individual who has made outstanding contributions to the welfare of the United States. Ms. Jenniches, AAES Chair, and John Parker, AAES Past Chair, will present the award.

The American Association of Engineering Societies is a federation of engineering societies dedicated to advancing the knowledge, understanding and practice of engineering. AAES's membership represents more than one million engineers in the United States. For more information, go to <http://www.aaes.org>.

**Sen. Bingaman and Rep. Ehlers Honored for Contributions to Science,
Engineering and Technology; Presentation during Congressional Visits Day**

WASHINGTON (9 May 2005) - Sen. Jeff Bingaman (D-N.M) and Rep. Vernon Ehlers (R-Mich.) will share the 2005 George E. Brown Jr. Award for their contributions to science, engineering and technology. The award is presented annually by the Science, Engineering and Technology Work Group to members of Congress who are effective advocates for federal investment in science, engineering and technology. The award is named for the late Rep. George E. Brown, Jr. (D-Calif.), who made outstanding contributions to federal support in these areas over a long and distinguished career in Congress.

Sen. Bingaman and Rep. Ehlers will be honored at a reception in the Rayburn House Office Building cafeteria on Tuesday, 10 May at 6 p.m. in conjunction with the 10th annual Congressional Visits Day, Tuesday and Wednesday, 10-11 May.

Sen. Bingaman is being honored for his leadership efforts to increase federal investment in research and development (R&D), particularly through the Department of Energy (DOE), as well as investment in training the scientists and engineers who will make technological advances possible. He and Sen. Lamar Alexander (R-Tenn.) recently wrote a letter in support of the DOE's Office of Science that has garnered the support of more than two-thirds of their Senate colleagues.

Rep. Ehlers, who holds a Ph.D. in nuclear physics, is being recognized for being a stalwart supporter and leading advocate for federal investment in science, engineering and technology for the nation's benefit; and for his recognition and promotion of a vital federal R&D enterprise, with special emphasis on the role of science and engineering education at all levels.

Congressional Visits Day (CVD) is the preeminent event bringing scientists, engineers, researchers, educators and technology executives to Washington to visit their congressional representatives and raise visibility and support for science, engineering and technology. The two-day event is coordinated by a multidisciplinary coalition of companies, professional societies and educational institutions that support science, engineering and technology in academia, government and private industry.

For more information on the award and CVD, see www.setcvd.org.

The IEEE Cincinnati Section Executive Committee **Member Names and Phone Numbers**

Cincinnati Section Voice Mail	513-629-9380 (call for meeting reservations)
Section Web Page	http://ieee.cincinnati.fuse.net/
Jim Everly - Chair	513-777-7129, j.everly@ieee.org (E-mail)
Steve Olenick - Vice Chair	513-554-2059 (Office), 513-642-3220 (Fax), steveo@nsseng.com (E-mail)
Laurie Tappel - Treasurer	513-397-6383, laurie.tappel@cinbell.com (E-mail)
Ron Harbaugh - Secretary	513-769-3781, ron.harbaugh@ieee.org (E-mail)
Brian J. Resnick - Member-At-Large & PACE Chair	513-556-4244 (Office), 513-759-5367 (Fax), Brian.Resnick@ieee.org (E-mail)
Randy Restle - Member-At-Large	rrestle@ieee.org (E-mail)
Charlie Nash - Arrangements Chair	513-723-3849, cnash@ieee.org (E-mail)
Randy Holt – Membership	859-572-5710 (Office), Holthr@nku.edu (E-mail)
Bob Morrison - Editor	513-287-3697 (Office), 513-287-4155 (Fax), j.r.morrison@ieee.org (E-mail)